

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Withdrawn – currently amended) A radial transverse electric polarizer device constructed and arranged to polarize a beam of radiation in a transverse electric polarization direction, comprising:

~~a substrate material having a first refractive index;~~

~~a plurality of elongated azimuthally oriented elements coupled to said substrate material, said elongated elements having a second refractive index, wherein said plurality of elements are periodically spaced apart to form a plurality of gaps such that said radial transverse electric polarizer device interacts with an electromagnetic radiation comprising first and second polarizations to reflect substantially all of the radiation of the first polarization and transmit substantially all of the radiation of the second polarization; and~~

~~a thin layer of absorbing material, said thin layer of absorbing material absorbing radiation at a wavelength of said electromagnetic beam of radiation,~~

~~wherein said plurality of elongated elements are coated with said thin layer of absorbing material.~~

2. (Withdrawn – currently amended) A radial transverse electric polarizer device according to claim 1,

wherein said beam of radiation includes a first polarization that is a transverse magnetic polarization and [[said]] a second polarization that is a transverse electric polarization and said plurality of elements are periodically spaced apart to form a plurality of gaps such that said radial transverse electric polarizer device interacts with the beam of radiation comprising first and second polarizations to reflect substantially all of the radiation of the first polarization and transmit substantially all of the radiation of the second polarization.

3. (Withdrawn – currently amended) A radial transverse electric polarizer device according to claim 1,

wherein said plurality of elongated elements are formed of an electrically conductive material at a wavelength of said ~~electromagnetic~~ beam of radiation.

4. (Withdrawn) A radial transverse electric polarizer device according to claim 3, wherein said electrically conductive material is selected from the group: aluminum, chrome, silver and gold.
5. (Withdrawn – currently amended) A radial transverse electric polarizer device according to claim 1, further comprising:  
wherein said a substrate material [[is]] to which the plurality of elongated elements are coupled in an azimuthal orientation and which is formed of a dielectric material at a wavelength of said electromagnetic beam of radiation.
6. (Withdrawn) A radial transverse electric polarizer device according to claim 5, wherein said dielectric material is selected from the group: quartz, silicon oxide, silicon nitride, gallium arsenide and combinations thereof.
7. (Canceled).
8. (Withdrawn – currently amended) A radial transverse electric polarizer device according to claim [[1]] 2,  
wherein said thin layer of absorbing material is selected such that a portion of reflected radiation of the first polarization transformed into a secondary radiation of a second polarization is substantially absorbed by said thin layer of absorbing material.
9. (Withdrawn) A radial transverse electric polarizer device according to claim 8, wherein the radiation of the second polarization is minimally absorbed by said thin layer of absorbing material.
10. (Withdrawn) A radial transverse electric polarizer according to claim 9, wherein said thin layer of absorbing material substantially eliminates polarization flare in the transmitted radiation of a second polarization.
11. (Withdrawn) A radial transverse electric polarizer device according to claim 1, wherein said thin layer of absorbing material is selected from the group: Al<sub>2</sub>O<sub>3</sub> and anodic oxidized aluminum.

12. (Currently amended) A lithographic apparatus, comprising:  
a radiation system configured to provide a projection beam of radiation;  
a support configured to support a patterning device, the patterning device configured to pattern the beam according to a desired pattern;  
a substrate table configured to hold a substrate;  
a projection system configured to project the patterned beam onto a target portion of the substrate; and  
a polarizer device constructed and arranged to polarize said beam of a radiation in a transverse electric polarization direction, said polarizer device comprising a plurality of elongated elements and a thin layer of absorbing material, said thin layer of absorbing material absorbing radiation at a wavelength of said ~~electromagnetic~~ beam of radiation,  
wherein said plurality of elongated elements are coated with said thin layer of absorbing material.
13. (Original) A lithographic projection apparatus according to claim 12,  
wherein said polarizer device further comprises:  
a first layer of material having a first refractive index;  
a second layer of material having a second refractive index; and  
said plurality of elongated elements are azimuthally and periodically spaced apart, and disposed between said first layer and said second layer, said plurality of elongated elements interact with said beam of radiation to transmit transverse electric polarization of said beam of radiation.
14. (Original) A lithographic projection apparatus according to claim 12,  
wherein said polarizer device further comprises:  
a substrate material having a first index; and  
said plurality of elongated elements are azimuthally oriented and coupled with said substrate material, said elongated elements having a second refractive index, said plurality of elongated elements are periodically spaced apart to form a plurality of gaps such that said polarizer device interacts with the beam of radiation comprising first and second polarizations to reflect substantially all of the radiation of the first polarization and transmit substantially all of the radiation of the second polarization.

15. (Original) A lithographic projection apparatus according to claim 14,  
wherein said thin layer of absorbing material is selected such that a portion of  
reflected radiation of the first polarization transformed into a secondary radiation of a second  
polarization is substantially absorbed by said thin layer of absorbing material.
16. (Original) A lithographic projection apparatus according to claim 14,  
wherein the radiation of the second polarization is minimally absorbed by said thin  
layer of absorbing material.
17. (Original) A lithographic projection apparatus according to claim 14,  
wherein said thin layer of absorbing material substantially eliminates polarization  
flare in the transmitted radiation of a second polarization.
18. (Original) A lithographic projection apparatus according to claim 14,  
wherein the second polarization is a transverse electric polarization.
19. (Original) A lithographic projection apparatus according to claim 12,  
wherein said thin layer of absorbing material is selected from the group:  $\text{Al}_2\text{O}_3$  and  
anodic oxidized aluminum.
20. (Original) A lithographic projection apparatus according to claim 12,  
wherein a wavelength range of said radiation beam is in the ultraviolet spectrum.
21. (Original) A lithographic projection apparatus according to claim 20,  
wherein said wavelength range is between 365 nm and 126 nm.
22. (Currently amended) A lithographic projection apparatus according to claim ~~[[12]]~~ 20,  
wherein said wavelength range is in the extreme ultraviolet.
23. (Withdrawn – currently amended) A device manufacturing method, comprising:  
projecting a patterned beam of radiation onto a target portion of a layer of radiation-  
sensitive material at least partially covering a substrate; and  
polarizing said beam of radiation in a transverse electric polarization using a radial  
transverse electric polarizer device including a plurality of elongated elements and a thin

layer of absorbing material, said thin layer of absorbing material absorbing radiation at a wavelength of said beam of radiation,

wherein said plurality of elongated elements are coated with said thin layer of absorbing material.

24. (Withdrawn) A device manufactured according to the method of claim 23.

25.-32. (Canceled)